



## **FOREWORD**

his is a pivotal time in the history of the Ministry of Education and Technical Education (MOETE) in Egypt. We are embarking on the transformation of Egypt's K-12 education system starting in September 2018 with KG1, KG2 and Primary 1 continuing to be rolled out year after year until 2030. We are transforming the way in which students learn to prepare Egypt's youth to succeed in a future world that we cannot entirely imagine.

MOETE is very proud to present this new series of textbooks, Discover, with the accompanying digital learning materials that captures its vision of the transformation journey. This is the result of much consultation, much thought and a lot of work. We have drawn on the best expertise and experience from national and international organizations and education professionals to support us in translating our vision into an innovative national curriculum framework and exciting and inspiring print and digital learning materials.

The MOETE extends its deep appreciation to its own "Center for Curriculum and Instructional Materials Development" (CCIMD) and specifically, the CCIMD Director and her amazing team. MOETE is also very grateful to the minister's senior advisors and to our partners including "Discovery Education," "Nahdet Masr," "Longman Egypt," UNICEF, UNESCO, and WB, who, collectively, supported the development of Egypt's national curriculum framework. I also thank the Egyptian Faculty of Education professors who participated in reviewing the national curriculum framework. Finally, I thank each and every MOETE administrator in all MOETE sectors as well as the MOETE subject counselors who participated in the process.

This transformation of Egypt's education system would not have been possible without the significant support of Egypt's current president, His Excellency President Abdel Fattah el-Sisi. Overhauling the education system is part of the president's vision of 'rebuilding the Egyptian citizen' and it is closely coordinated with the ministries of higher education & scientific research, Culture, and Youth & Sports. Education 2.0 is only a part in a bigger national effort to propel Egypt to the ranks of developing countries and to ensure a great future to all of its citizens.





# WORDS FROM THE MINISTER OF EDUCATION & TECHNICAL EDUCATION

t is my great pleasure to celebrate this extraordinary moment in the history of Egypt where we launch a new education system designed to prepare a new Egyptian citizen proud of his Egyptian, Arab and African roots - a new citizen who is innovative, a critical thinker, able to understand and accept differences, competent in knowledge and life skills, able to learn for life and able to compete globally.

Egypt chose to invest in its new generations through building a transformative and modern education system consistent with international quality benchmarks. The new education system is designed to help our children and grandchildren enjoy a better future and to propel Egypt to the ranks of advanced countries in the near future.

The fulfillment of the Egyptian dream of transformation is indeed a joint responsibility among all of us; governmental institutions, parents, civil society, private sector and media. Here, I would like to acknowledge the critical role of our beloved teachers who are the role models for our children and who are the cornerstone of the intended transformation.

I ask everyone of us to join hands towards this noble goal of transforming Egypt through education in order to restore Egyptian excellence, leadership and great civilization.

My warmest regards to our children who will begin this journey and my deepest respect and gratitude to our great teachers.

> Dr. Tarek Galal Shawki Minister of Education & Technical Education





NAME:

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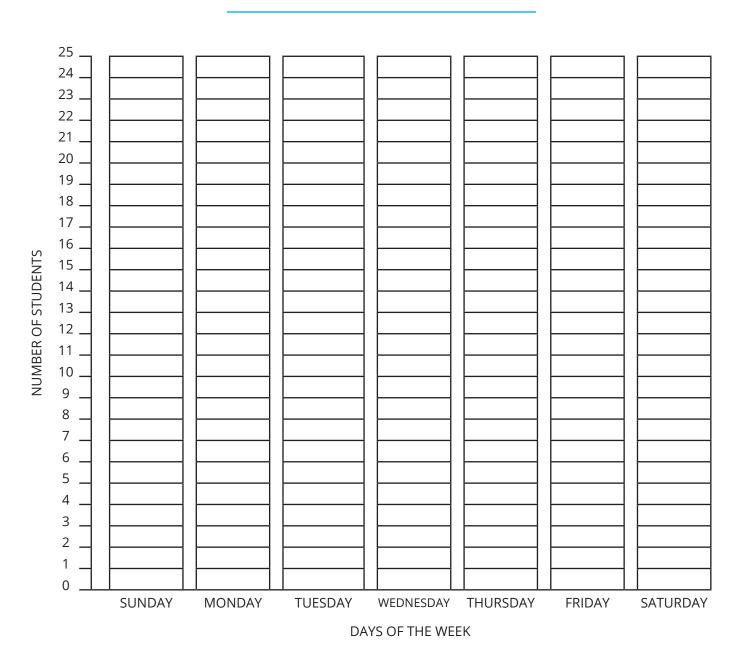


## **LESSON 2: APPLY**

Directions: Work with your teacher to create a graph.

Then answer questions about the data.



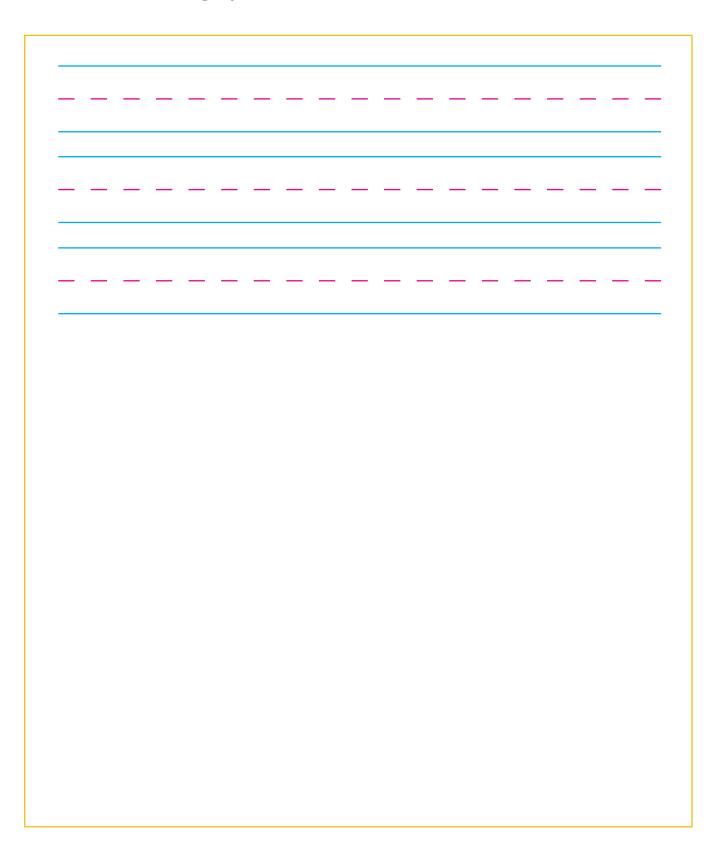


My favorite day of the week is

Our class's favorite day of the week is

# **LESSON 2: MATH JOURNAL**

Directions: Reflect on your learning. Write or draw 3 things you noticed about the class bar graph.



## **LESSON 3: APPLY**

Directions: Use the Favorite Day of the Week graphs to answer the questions.

How many students like Tuesday best? \_\_\_\_\_\_

How many students like Friday best?

Friday

1. \_\_\_\_\_

Tuesday Friday

2. \_\_\_\_\_

Monday

Tuesday Thursday

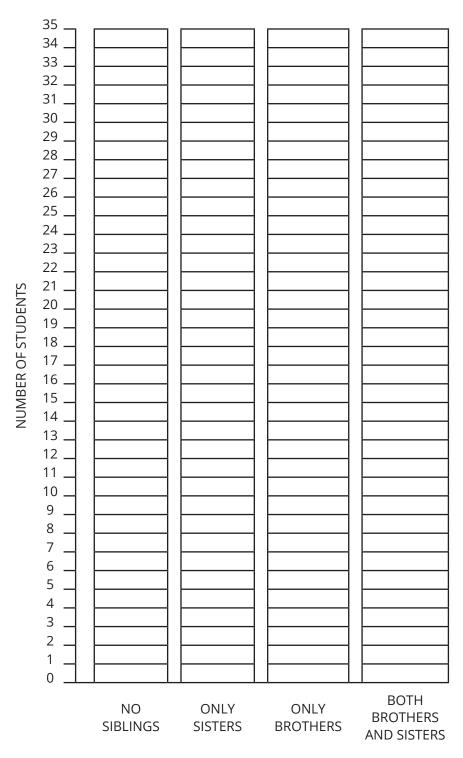
4. Sunday Wednesday

5. \_\_\_\_\_ Saturday Sunday

**LESSON 4: APPLY** 

Directions: Work with your teacher to complete the graph.

## Siblings in Our Family



Directions: Record the class data in the section below.

No siblings: \_\_\_\_\_ students

Only sisters: \_\_\_\_\_ students

Only brothers: \_\_\_\_\_ students

Both brothers and sisters: \_\_\_\_\_\_ students

Directions: List the class data from least to greatest.

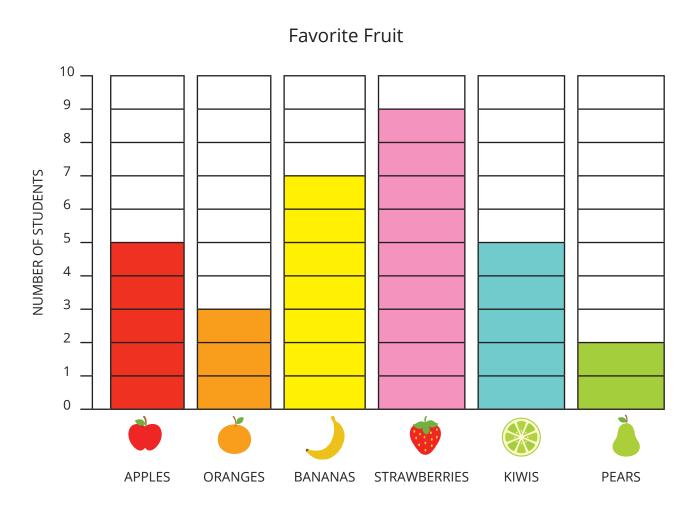


# LESSON 4: MATH JOURNAL

Directions: Reflect on your learning. Write or draw something you learned or noticed about today's bar graph. For example, which category had the most votes? Which category were you in? Did your category have a lot of students or a few?

#### **LESSON 5: APPLY**

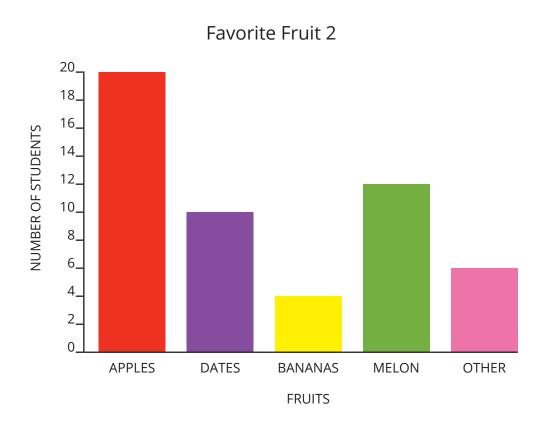
Directions: Look at the Favorite Fruit graph and then answer questions about the data.



- 1. How many more people liked strawberries than pears? \_\_\_\_\_\_
- 2. How many people all together liked kiwis, apples, and oranges? \_\_\_\_\_\_
- 3. How many more people liked strawberries than oranges? \_\_\_\_\_
- 4. How many people in all liked apples, bananas, and pears? \_\_\_\_\_\_
- 5. How many people in total shared which fruit they liked best? \_\_\_\_\_

#### **LESSON 6: APPLY**

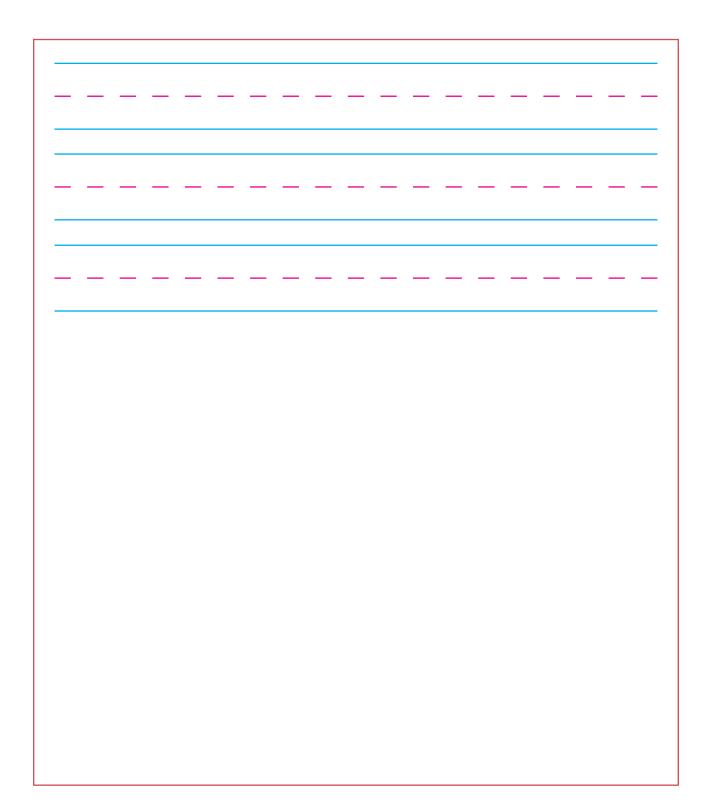
Directions: Look at the Favorite Fruit 2 graph and then answer questions about the data.



- 1. How many students liked apples best? \_\_\_\_\_\_
- 2. How many students liked dates best? \_\_\_\_\_\_
- 3. Which fruit is liked the least? \_\_\_\_\_
- 4. Which two fruits did people like the best? \_\_\_\_\_
- 5. How many people liked some other kind of fruit that was not listed? \_\_\_\_\_\_
- 6. How many more students liked apples than dates? \_\_\_\_\_\_

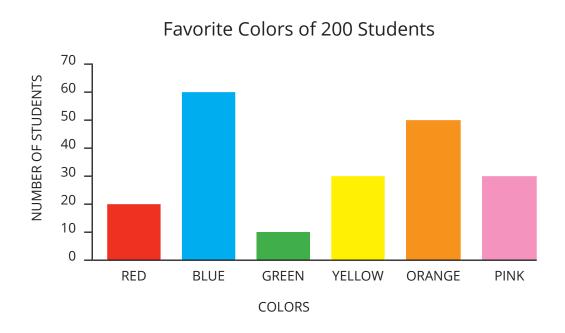
## **LESSON 6: MATH JOURNAL**

Directions: Reflect on your learning. Did you prefer working with the graph with a scale of 1 or working with the graph with a scale of 2? Or did it not matter to you? Write or draw a picture to show your thinking and explain why.



#### **LESSON 7: APPLY**

Directions: Look at the Favorite Colors graph and then answer questions about the data.

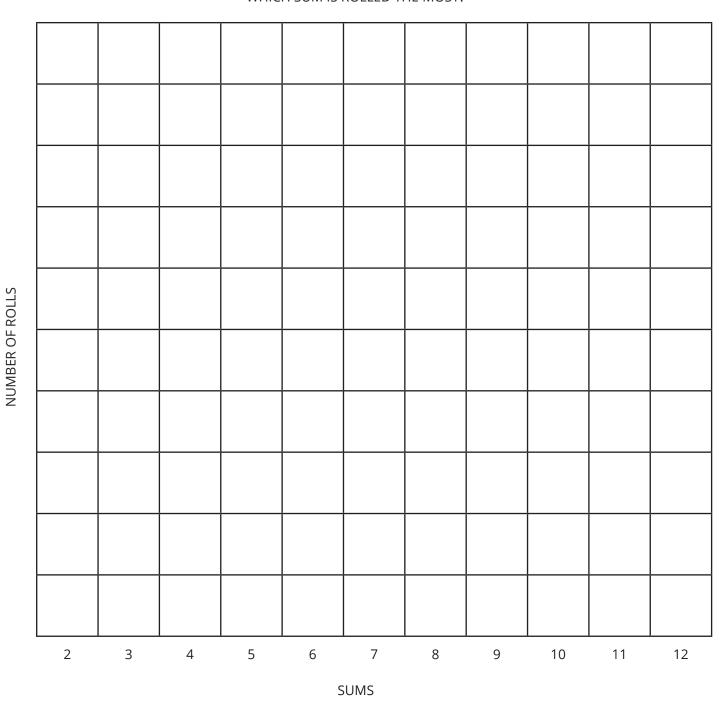


- 1. How many people liked red best? \_\_\_\_\_
- 2. How many people liked blue best? \_\_\_\_\_
- 3. How many people liked green best? \_\_\_\_\_
- 4. How many people liked yellow best? \_\_\_\_\_
- 5. How many people liked orange best? \_\_\_\_\_
- 6. How many people liked pink best? \_\_\_\_\_
- 7. How many people liked pink and blue (pink + blue)? \_\_\_\_\_
- 8. How many more people liked yellow than green (yellow green)? \_\_\_\_\_\_
- 9. How many people liked red and blue (red + blue)? \_\_\_\_\_
- 10. How many more people liked blue than orange (blue orange)? \_\_\_\_\_\_

**LESSON 8: APPLY** 

Directions: Roll two dice, find the sum, and then shade in the matching box on the chart below. Remember to start at the bottom.

WHICH SUM IS ROLLED THE MOST?



The winning SUM is \_\_\_\_\_

#### **LESSON 9: APPLY**

Directions: Look at the Pick A Flower pictograph and then answer the questions below.

Pick a Flower

MONDAY	******
TUESDAY	****
WEDNESDAY	## ## #
THURSDAY	******
FRIDAY	** * * * *

- 1. How many flowers were picked on Monday? \_\_\_\_\_
- 2. How many flowers were picked on Thursday? \_\_\_\_\_\_
- 3. Did any two days have the same number of flowers picked? \_\_\_\_\_
- 4. How many flowers were picked on Monday and Tuesday? \_\_\_\_\_
- 5. Which day had the least number of flowers picked? \_\_\_\_\_
- 6. Which day had the most number of flowers picked? \_\_\_\_\_
- 7. How many more flowers were picked on Thursday than Wednesday? \_\_\_\_\_\_
- 8. How many flowers were picked on Monday, Tuesday, and Wednesday? \_\_\_\_\_\_

# **LESSON 9: MATH JOURNAL**

Directions: Reflect on your learning. Then write at least one thing you learned about pictographs today.

Something I learned about pictographs today is	
	-
	-
	-

**LESSON 10: APPLY** 

Directions: Use the data from the Pick a Flower Pictograph to create

a bar graph.

Graph elements:

☐ Title ☐ Scale

☐ Horizontal label ☐ Categories labeled

☐ Vertical label ☐ Colorful bars

MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY

#### **LESSON 11: APPLY**

Directions: Work with a partner to solve each problem.

Write your answers in the blanks.





















Directions: Use the Doubles mental math strategy to solve.

Directions: Use the Counting On mental math strategy to solve the problems below.

ADD	SUBTRACT		
3 + 12 =	8 - 6 =		
10 + 6 =	15 – 10 =		



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# LESSON 12: MATH JOURNAL

Directions: Reflect on your learning. Write or draw about which mental math strategy you prefer. Explain why.

**LESSON 13: APPLY** 

Directions: Use the number chart to add or subtract 10.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30



## **CHALLENGE:**

Directions: Write and solve your own + 10 addition problem.

## **LESSON 14: APPLY**

Directions: Work with a partner to find all the ways to make 10.

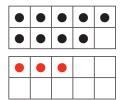
1+	= 10
2 +	= 10
3 +	= 10
4 +	= 10
5+	= 10

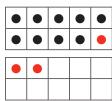
6+	= 10
7 +	= 10
8 +	= 10
9 +	= 10
10 +	= 10

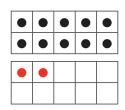
## Examples:

So, 
$$6 + 8 = 14$$

$$9 + 3$$







So, 
$$9 + 3 = 12$$

## **LESSON 14: APPLY CONTINUED**

Directions: Use the Making Tens mental math strategy to solve these problems.

1.	5 + 6	5 + = 10	So, 5 + 6 =
2.	7 + 4	7 += 10	So, 7 + 4 =
3.	8 + 5	8 + = 10	So, 8 + 5 =
4.	13 – 3	13 – —— = 10	So, 13 – 3 =
5.	12 – 5	12 – —— = 10	So, 12 – 5 =
6.	18 – 9	18 – —— = 10	So, 18 – 9 =



Directions: Reflect on your learning. Write or draw about which mental math strategy you prefer. Explain why.

#### **LESSON 15: APPLY**

Directions: Read the story problem. Use mental math strategies to find the answer. Then write a number sentence to show the problem.

1. Raja counted 7 ants crawling on the sidewalk. Then he found 3 more ants crawling. How many ants did Raja see in all?

\_\_\_\_\_ + \_\_\_\_ = \_\_\_\_

2. Miryam saw 8 birds flying in the sky. She also saw 4 birds sitting in a tree. How many birds did Miryam see in all?

\_\_\_\_\_ + \_\_\_\_ = \_\_\_\_

3. Mukhtar has 6 jelly beans in a jar. He has another 8 jelly beans in his pocket. How many jelly beans does Mukhtar have in all?

\_\_\_\_\_ + \_\_\_\_ = \_\_\_\_

4. Heba has 7 stickers. Her teacher gives her 9 more stickers. How many stickers does Heba have all together?

\_\_\_\_\_ + \_\_\_\_ = \_\_\_\_

## **LESSON 15: MATH JOURNAL**

Directions: Reflect on your learning. Write or draw about which of the story problems was the most challenging to you. Explain your thinking.

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#### **LESSON 16: APPLY**

Directions: Read the story problem. Use mental math strategies to find the answer. Then write a number sentence to show the problem.

1. Salma has 18 figs. She eats 10 figs. How many figs does Salma have left?

\_\_\_\_\_ - \_\_\_\_ = \_\_\_\_

2. Ahmed gathers 15 rocks at the beach. He tosses 6 rocks into the water. How many rocks does Ahmed have left?

\_\_\_\_\_ - \_\_\_\_ = \_\_\_\_

3. Mustafa has 16 candies. He ate 6 candies. How many candies does Mustafa have left?

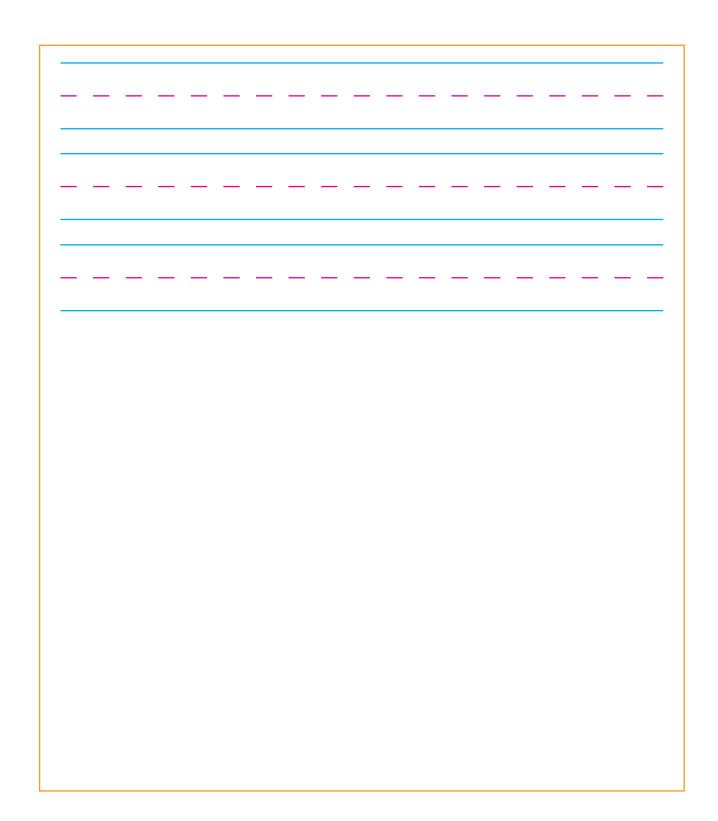
\_\_\_\_\_ - \_\_\_\_ = \_\_\_\_\_

4. Rashida bought 13 oranges. She gave 3 oranges to her father. How many oranges does she have now?

\_\_\_\_ = \_\_\_\_



Directions: Reflect on your learning. Work with your Shoulder Partner to make a subtraction story problem.



**LESSON 17: APPLY** 

Directions: Use a mental math strategy to solve the problem.

At 8 p.m., Omar saw 3 stars in the sky. At 9 p.m., he saw 13 stars in the sky. How many stars were added to the sky between 8 p.m. and 9 p.m.?

8 PM

公公公

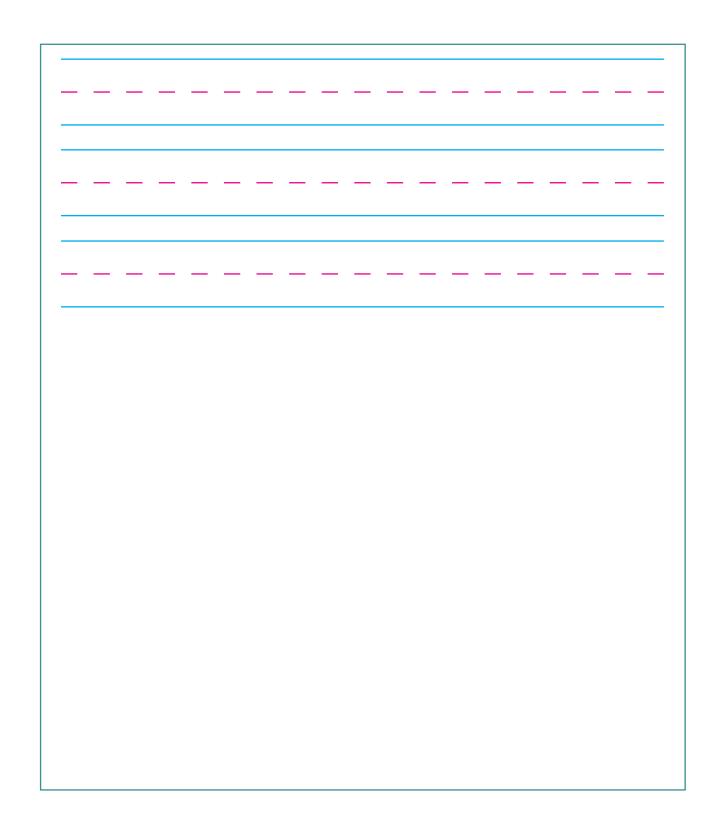
9 PM



+ =



Directions: Write or draw one way to solve for missing addends in addition problems.



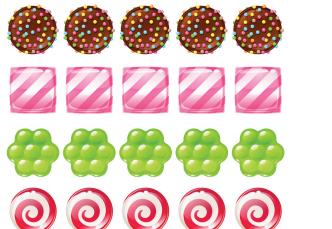
**LESSON 18: APPLY** 

Directions: Use a mental math strategy to solve the problem.

Before lunch, Aya had 20 candies. After lunch, Aya had 11 candies left. How many candies did Aya eat at lunch?

BEFORE LUNCH

AFTER LUNCH





Directions: Use mental math strategies to solve each problem.

# LESSON 19: MATH JOURNAL

Directions: Write a list of the mental math strategies you used.

Put a star next to the one you used the most.

1		

**LESSON 20: APPLY** 

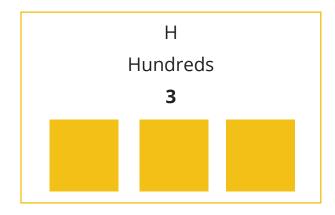
Directions: Use the 120 Chart to play 101 and Over.

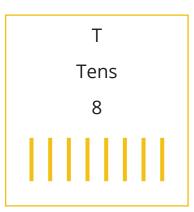
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

**LESSON 21: APPLY** 

Directions: Write the numbers given by the teacher.

Example:





0	
Ones	
5	

	Hundreds	Tens	Ones
1.			
	Value:	Value:	Value:
2.			
	Value:	Value:	Value:
3.			
	Value:	Value:	Value:
4.			
	Value:	Value:	Value:
5.			
	Value:	Value:	Value:

#### **LESSON 22: APPLY**

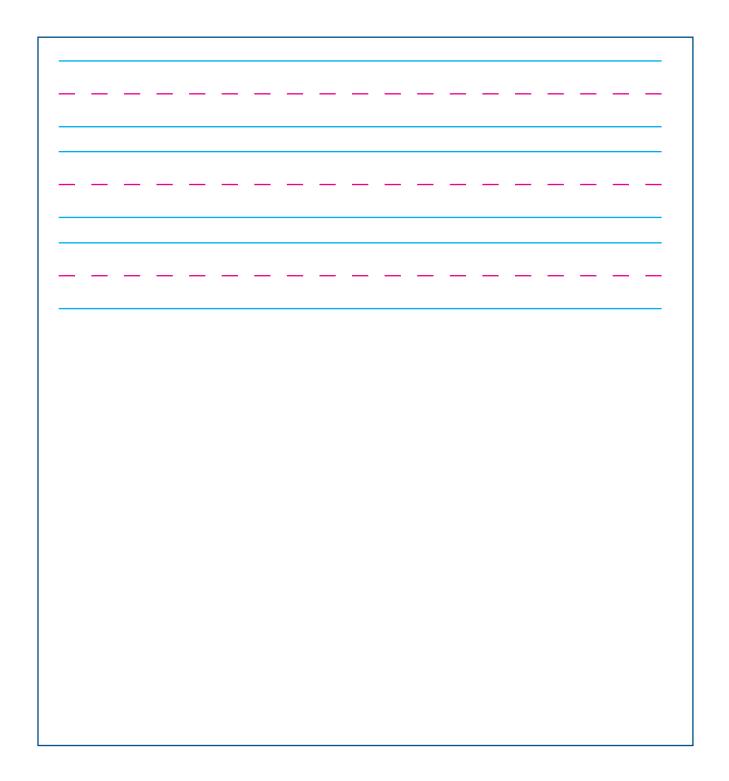
Directions: Play the place value game with your group. Record your numbers in the top boxes. Draw your place value pictures in the bottom boxes. Write your number on the line.

Hundreds	Tens	Ones	
			Number
Hundreds	Tens	Ones	
			Number
Hundreds	Tens	Ones	
			Number
Hundreds	Tens	Ones	
			Number

**LESSON 22: MATH JOURNAL** 

Directions: Reflect on your learning. Answer the question below.

How can 3 have different values?

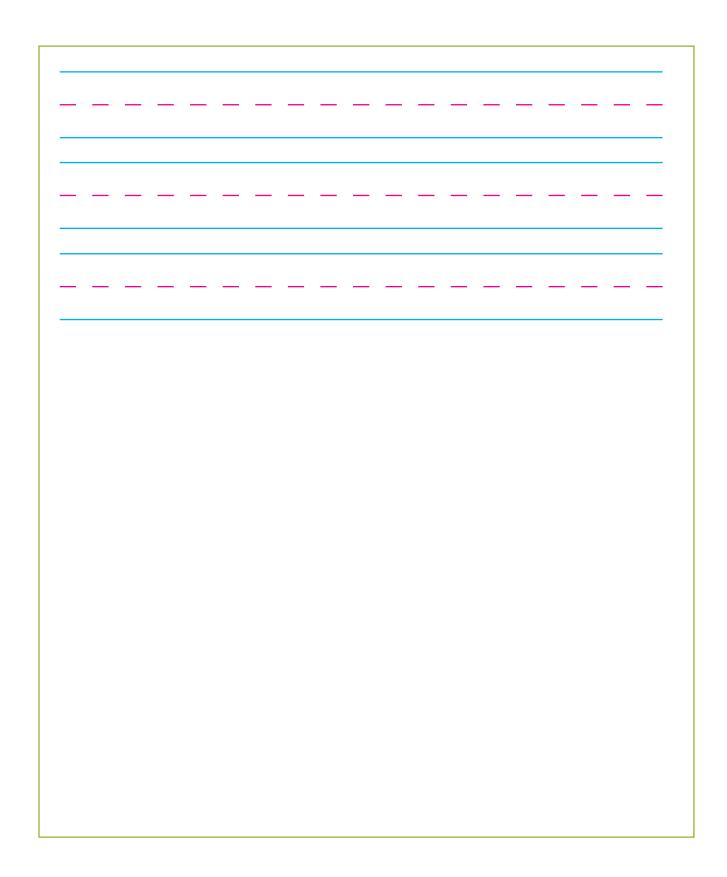


# LESSON 24: APPLY

Standard Form	Word Form
1	one



Directions: Write some numbers in word form. Check your work.



#### **LESSON 25: APPLY**

Directions: Copy the number on the board into the Word Form side of the chart. Then write the Standard Form of the number. The first one has been done for you.

Standard Form	Word Form
10	ten
	alayan
	eleven
	twelve
	thirteen
	fourteen
	fifteen
	sixteen
	seventeen
	eighteen
	nineteen

### **LESSON 26: MATH JOURNAL**

I have 224.

Who has

300 + 50 + 3?

I have \_\_\_\_\_\_ .

Who has

-----+ -------?

I have \_\_\_\_\_ .

Who has

I have \_\_\_\_\_\_.

Who has

Circle the words that describe your thoughts and feelings about working on numbers in standard and expanded form. You can circle more than one.

fun

easy

difficult

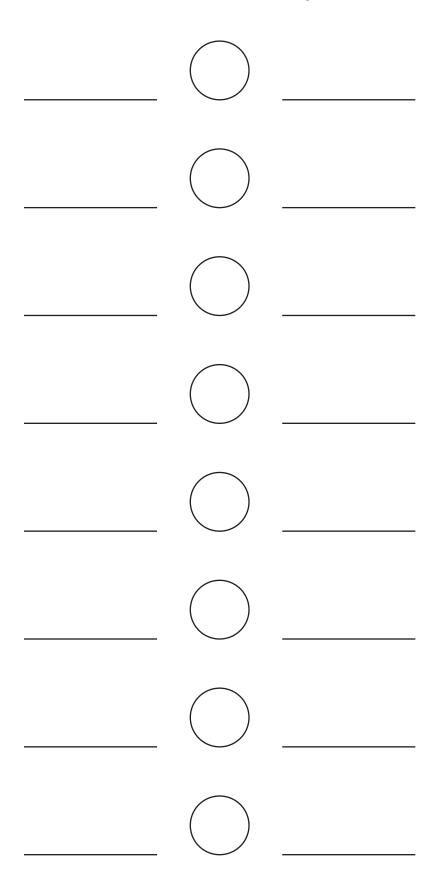
confusing

challenging

help!

#### **LESSON 28: APPLY**

Directions: Choose 2 cards. Write the numbers in the blanks. Then compare the numbers and write a >, <, or = symbol in the circle.





Directions: Reflect on your learning. Write or draw directions for how to compare numbers.

-

### **LESSON 29: APPLY**

Directions: Write the numbers in order from least to greatest.

17	9	2	3	8

Directions: Write the numbers in order from least to greatest.

11	156	4	23	17

Directions: Write the numbers in order from greatest to least.

4	13	29	33	23

Directions: Write the numbers in order from greatest to least.

28	4	38	241	34

**LESSON 30: APPLY** 

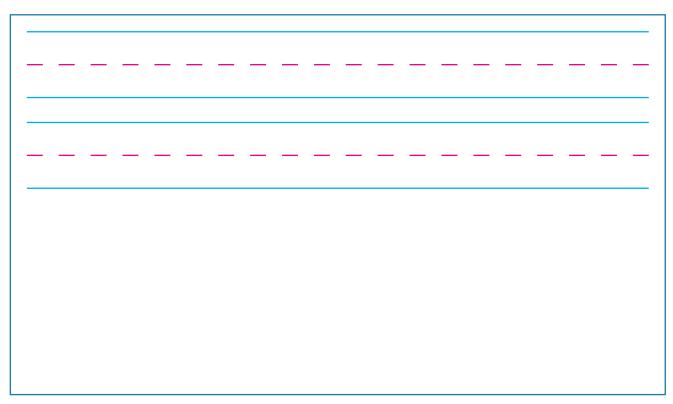
Directions: Work with your Shoulder Partner to choose 5 game cards. Then write the numbers on your game cards from least to greatest.



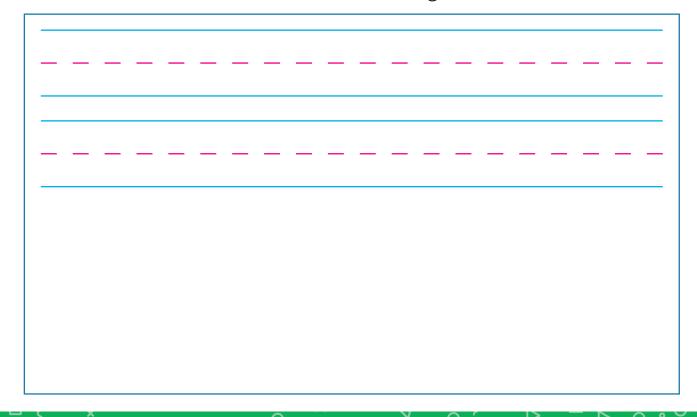
**LESSON 30: MATH JOURNAL** 

Directions: Write or draw what you did well and what you still need to work on.

## What I Did Well



# What I Am Still Working On



Directions: Solve the problems below. Then rewrite the problems by switching the addends, and solve the new problems.

14 + 4 =	+ =
9 + 15 =	+ =
12 + 8 =	+ =
8 + 9 =	+ =



#### **LESSON 32: APPLY**

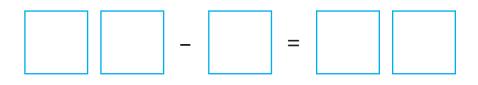
Directions: Do the first problem with the teacher.

Solve the rest with your group.

- 1. Roll the die. Write the number in the first box.
- 2. Roll the die again. Write the number in the second box.
- 3. Pick a card. Write the number in the third box.
- 4. Add to find the sum. Write the answer.

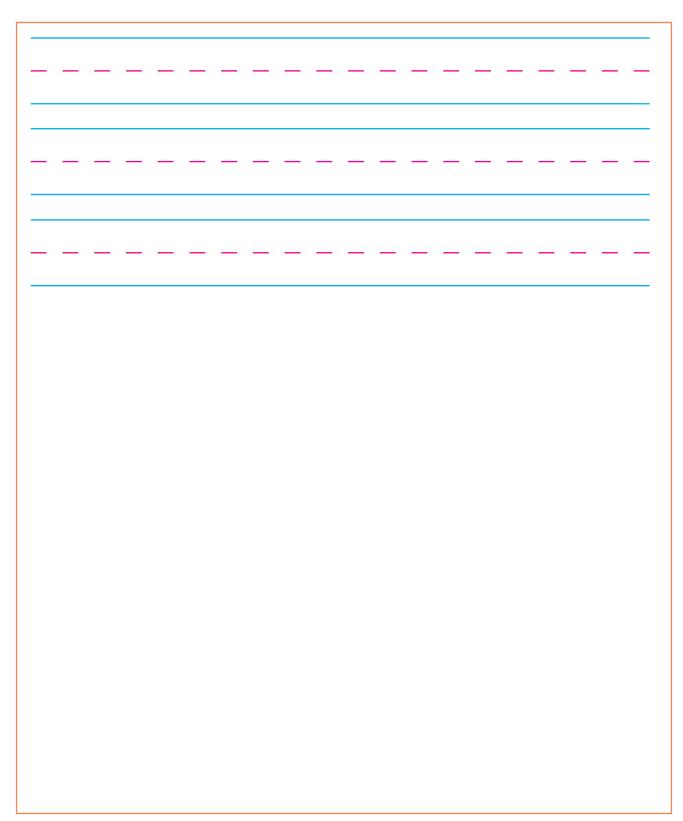
Directions: Do the first problem with the teacher. Solve the rest with your group.

- 1. Roll the die. Write the number in the first box.
- 2. Roll the die again. Write the number in the second box.
- 3. Pick a card. Write the number in the third box.
- 4. Subtract to find the difference. Write the answer.



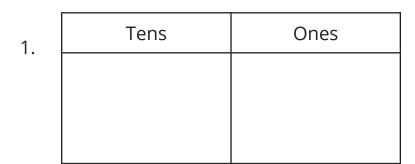
## **LESSON 32: MATH JOURNAL**

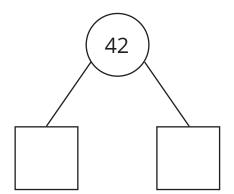
Directions: Reflect on your learning. How did you use mental math strategies to solve the problems? How did you help each other solve the problems?



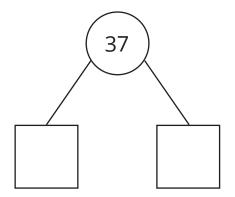
### **LESSON 33: APPLY**

Directions: Decompose each number in two ways. Draw sticks to show Tens and dots to show Ones. Then write the Tens and Ones in the number boxes.

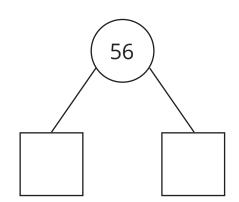




2. Tens Ones

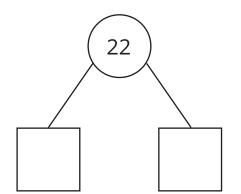


3. Tens Ones



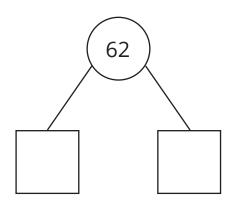
4.

Tens	Ones



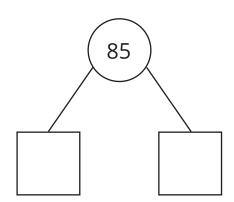
5.

Tens	Ones



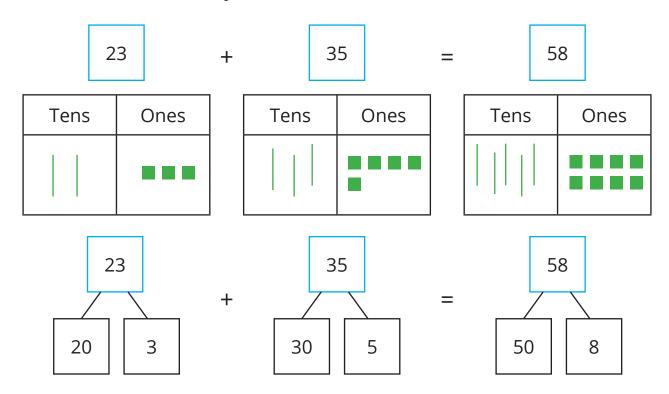
6.

Tens	Ones



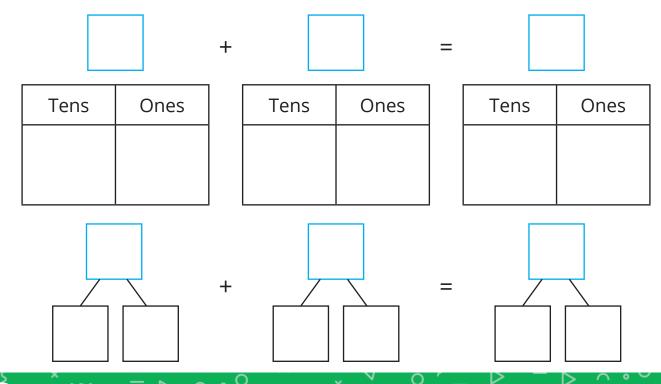
#### **LESSON 34: APPLY**

Example: Hassan bought 23 chocolate cookies. He also bought 35 vanilla cookies. How many cookies does Hassan have in all?

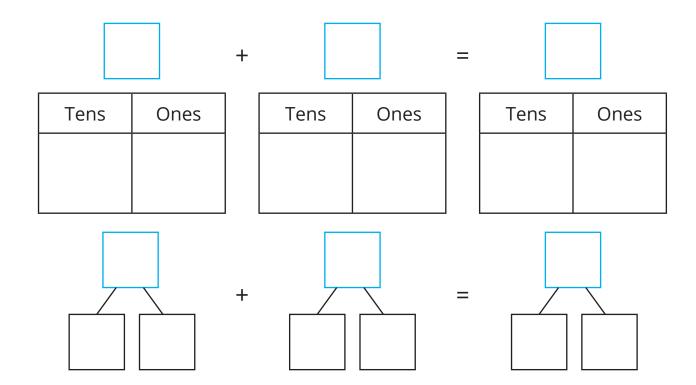


Directions: Read the problem and decompose to solve.

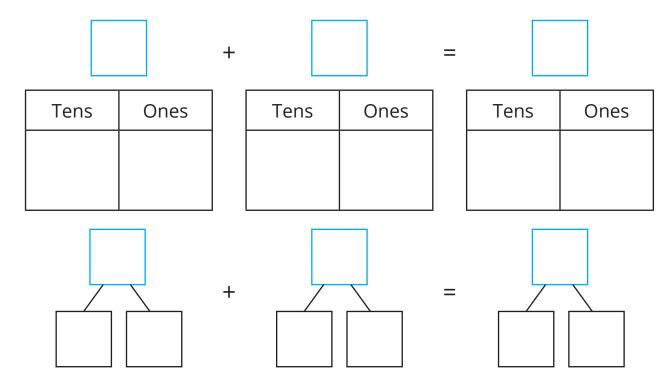
1) Miryam found 68 seashells on the beach. Her sister found 21 seashells. How many seashells did they find in all?



2) Aisha went on a bug hunt. She counted 62 ants and 26 crickets. How many bugs did she find in all?

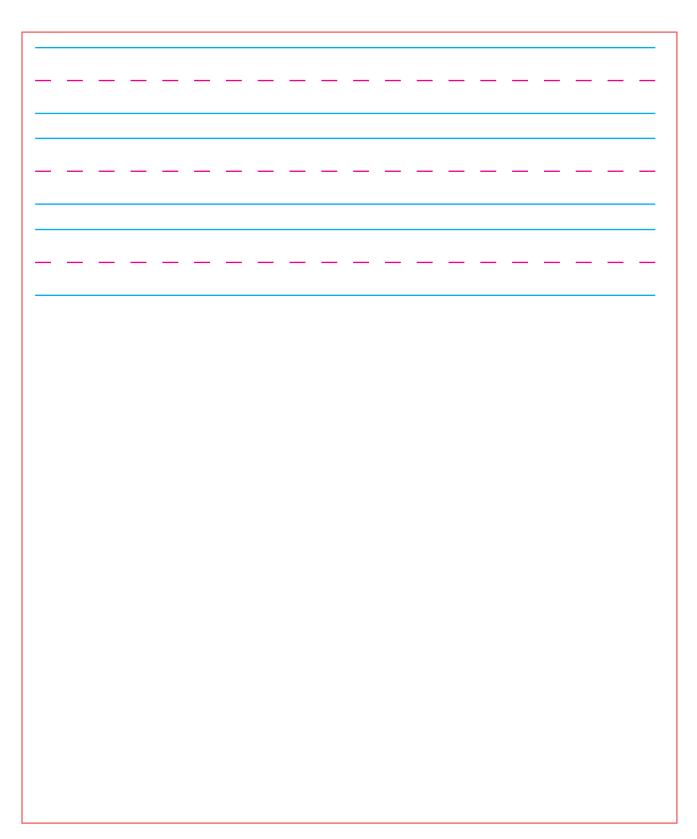


3) Layla has a collection of stickers. She has 54 car stickers and 44 superhero stickers. How many stickers does Layla have all together?





Directions: Reflect on your learning. Which decomposition method do you like the most? Use that method to find the sum of 57 and 31.

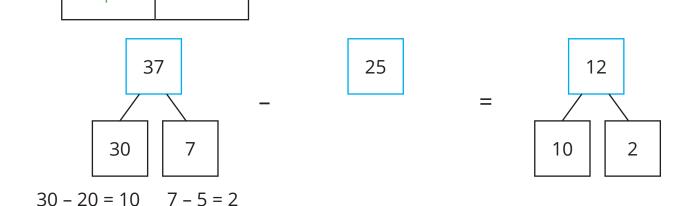


#### **LESSON 35: APPLY**

Example: Sabrine made 37 biscuits with her mom. They ate 25 biscuits.

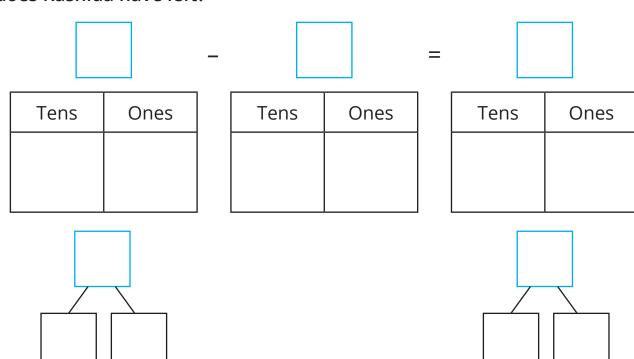
How many biscuits were left?

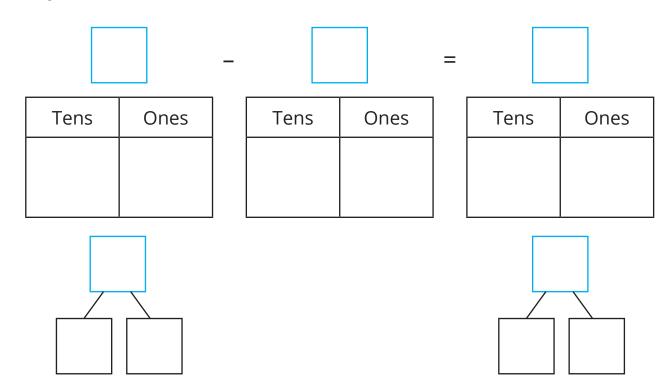




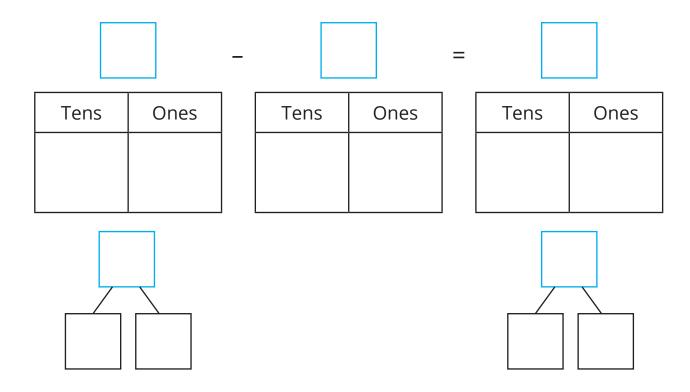
Directions: Read the story problems and decompose to solve.

1) Rashida had 26 dates. She gave 13 to her sister. How many dates does Rashida have left?





3) Kamilah sewed 59 beads on her dress. Unfortunately, 16 of them fell off. How many beads were left on her dress?





Directions: Write one addition story problem and one subtraction story problem.

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l	 	

Directions: Use the place value strategy to estimate the answers to the problems. Do not solve the problems.

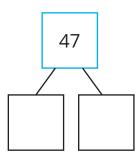
1. 43 + 42	Estimate:
2. 23 + 58	Estimate:
3. 51 – 24	Estimate:
4. 67 + 25	Estimate:
5. Sheba had 33 LE. She earned an additional 29 LE doing her chores. Estimate how many LE she has now.	Estimate: ————
6. Raj has a 64-minute train ride. He has been on the train for 32 minutes. Estimate how many minutes are left on his train ride.	Estimate:

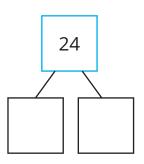
#### **Directions:**

- 1. First, circle the numbers in the Tens place and add them together to estimate the sum.
- 2. Then decompose the numbers into Tens and Ones.
- 3. Find the sum.
- 4. Finally, compare the sum to your estimate. Are they close?

47 + 24

Estimate: \_\_\_\_\_





\_\_\_\_\_ + \_\_\_\_ = \_\_\_\_

Tens Tens Tens Total

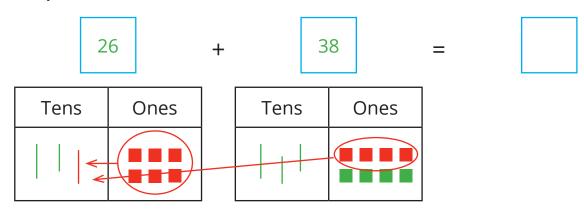
\_\_\_\_\_ + \_\_\_\_ = \_\_\_\_

Ones Ones Total

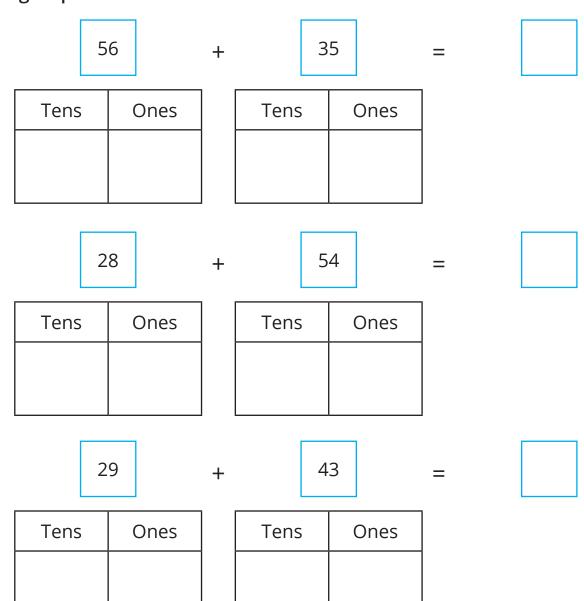
\_\_\_\_\_ + \_\_\_\_ = \_\_\_\_

Tens Total Ones Total SUM

### Example:

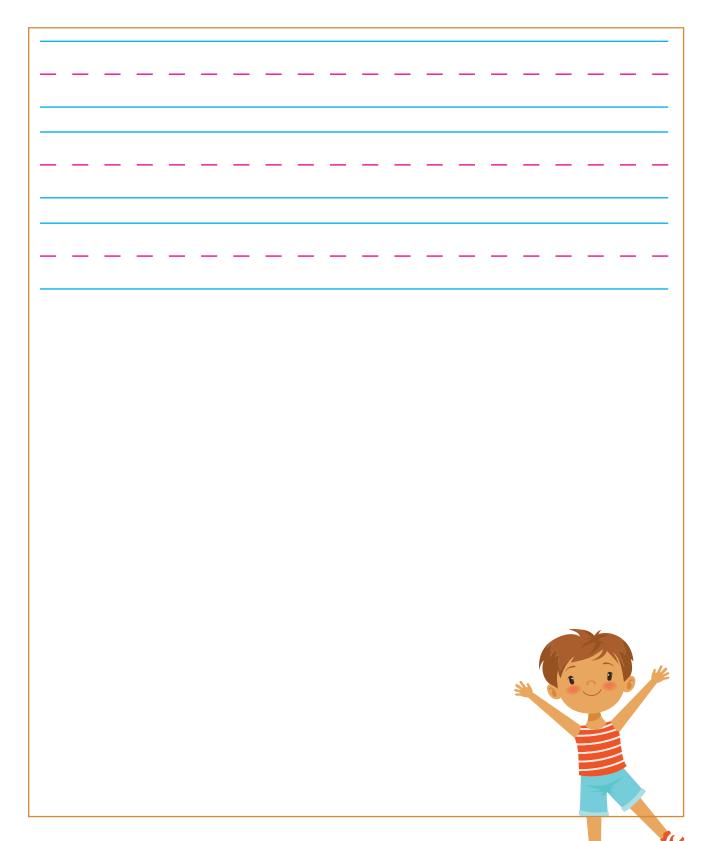


Directions: Draw Tens sticks and Ones dots to represent each addend. Regroup the Ones. Find the sum.



## **LESSON 38: MATH JOURNAL**

Directions: Reflect on your learning. What do you think happens when there are too many Tens in the Tens place? Write or draw a picture to explain.

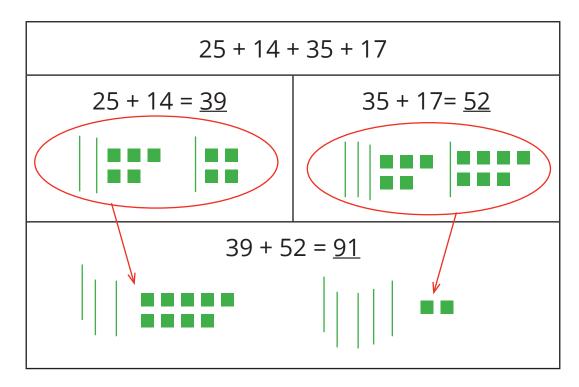


### **LESSON 39: APPLY**

Directions: Select cards and record the numbers to create addends. Draw Tens sticks and Ones dots to show each number. Find the sum. Regroup if needed.

			+			=	
1.	Tens	Ones		Tens	Ones		
			+			=	
2.	Tens	Ones		Tens	Ones		
			+			=	
3.	Tens	Ones		Tens	Ones		
			+			=	
4.	Tens	Ones		Tens	Ones		
			1		1	1	

## Example:



Directions: Work with your group to solve.

**LESSON 41: APPLY** 

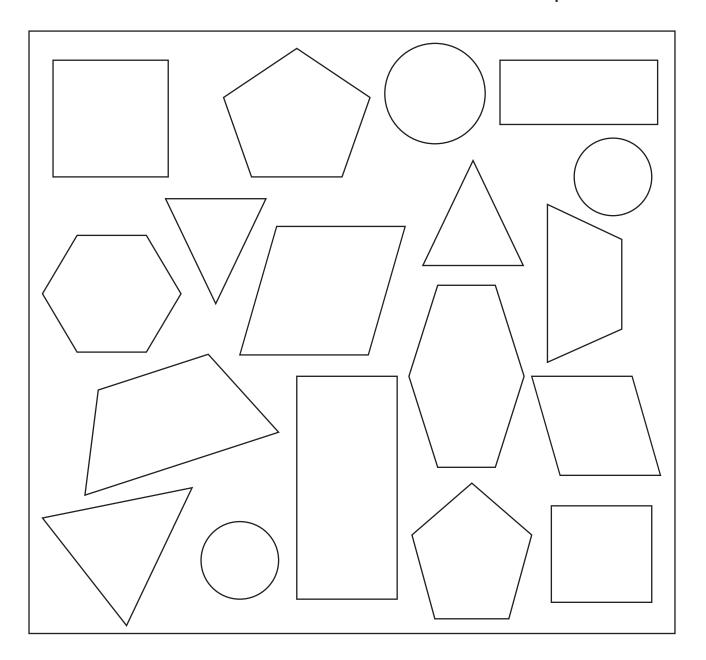
Directions: Determine how many sides and vertices each shape has.

Draw a star on all of the shapes that are quadrilaterals.

Shano	Nama	Attributes		
Shape	Name	Sides	Vertices	
	Triangle			
	Square			
	Rectangle			
	Trapezoid			
	Rhombus			
	Pentagon			
	Hexagon			

**LESSON 42: APPLY** 

Directions: Follow the attribute rules below to sort the shapes

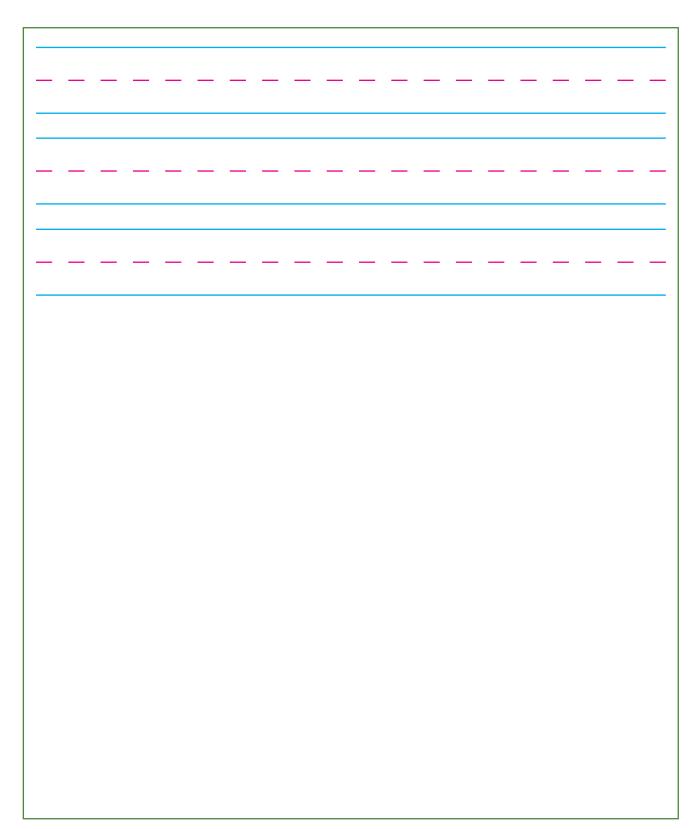


### **Attribute Sorting Rules**

- 1. Color the shapes with 3 or fewer sides red.
- 2. Color the shapes with 4 sides and 4 vertices blue.
- 3. Color the shapes with more than 5 vertices green.
- 4. Circle the shapes that have 4 equal sides.
- 5. Cross out the shapes that have no straight sides or vertices.

## **LESSON 42: MATH JOURNAL**

Directions: Reflect on your learning. What patterns did you notice as you sorted the shapes? What other ways could you sort the shapes? Write or draw your ideas.



**LESSON 43: APPLY** 

Directions: In boxes 1 to 6, draw the shapes your teacher describes.

What Sha	ape Am I?
1.	2.
3.	4.
5.	6.

What Shape Am I? Student Clues		
1.	2.	

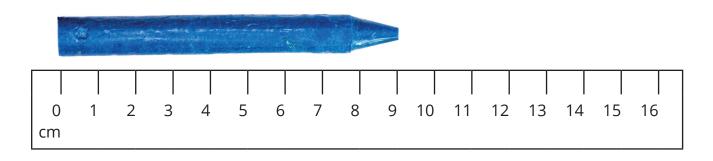
### **LESSON 43: MATH JOURNAL**

Directions: Reflect on your learning. Is it possible to have a shape with two sides? What about two vertices? What about a shape with 10 sides? Write or draw your thoughts.

Two sides? Two vertices? 10 sides?

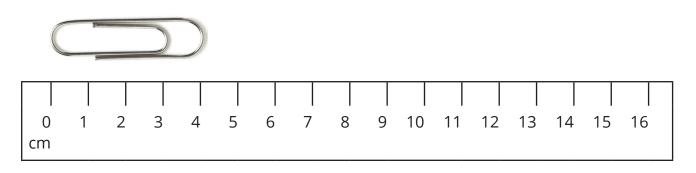
#### **LESSON 45: APPLY**

Directions: Use the ruler to measure the length of each object in centimeters.



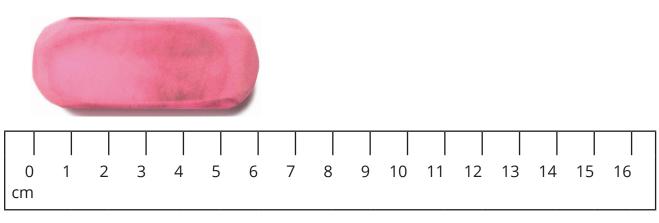
Crayon:

\_\_\_\_\_ centimeters



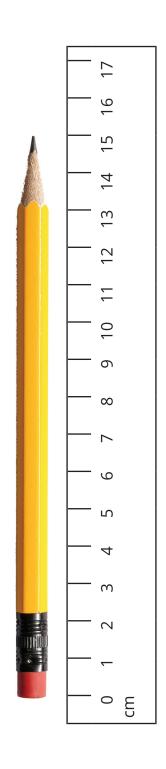
Paper clip:

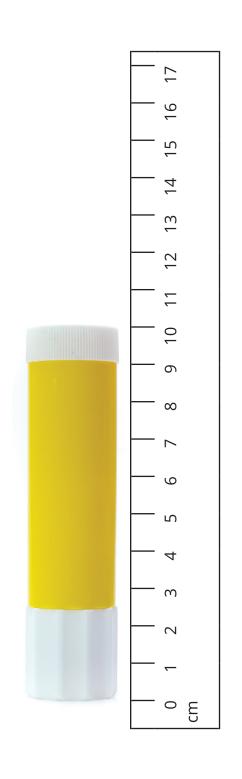
\_\_\_\_\_ centimeters



Pink eraser:

\_\_\_\_\_ centimeters





Pencil: Glue stick:

\_\_\_\_\_ centimeters \_\_\_\_\_ centimeters



LESSON 46: APPLY

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**LESSON 46: APPLY** 

Directions: Work with your group to find objects that are the

estimated length.

Estimated Length	Object
1 centimeter	
10 centimeters	
50 centimeters	
100 centimeters	



## **LESSON 46: MATH JOURNAL**

Directions: Reflect on your learning. Estimate the length of the object your teacher shows and write your reasoning. Then share with your Shoulder Partner.

Object	Estimated Length	Reasoning
1.	 centimeters	
2.	 centimeters	



**LESSON 47: APPLY** 

Directions: Measure one side of each shape. Record each measurement in the table below.

Object	Measurement
Triangle	centimeters
Square	centimeters
Rhombus	centimeters
Rectangle short side	centimeters
Rectangle long side	centimeters
Trapezoid short side	centimeters
Trapezoid long side	centimeters
Pentagon	centimeters
Hexagon	centimeters

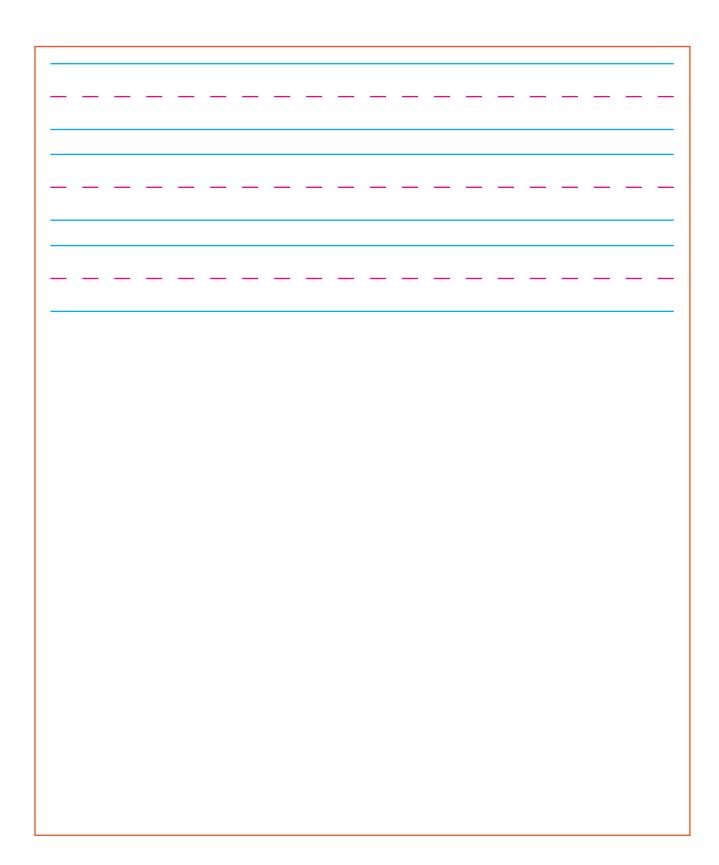
### **LESSON 48: APPLY**

Directions: Record the number of faces, edges, and vertices for each three-dimensional shape.

Name	Shape	Faces	Edges	Vertices
Square- based pyramid				
Cylinder				
Sphere				
Cube				
Rectangular prism				

# LESSON 48: MATH JOURNAL

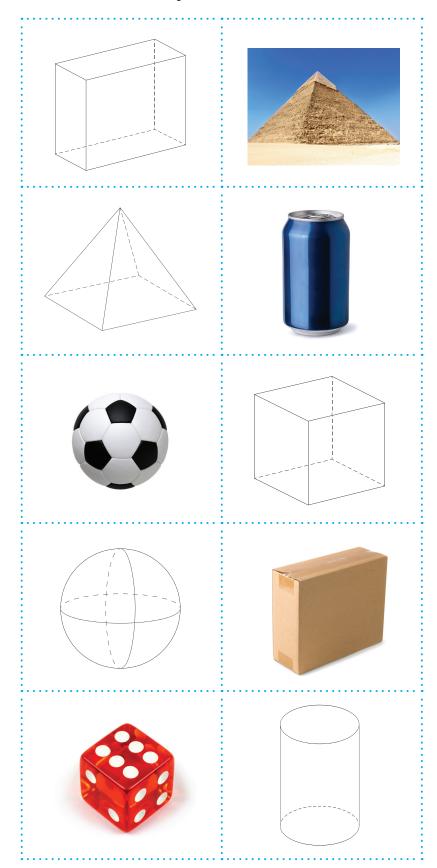
Directions: Write or draw what you learned today about the faces, edges, and vertices of three-dimensional shapes.





**LESSON 49: APPLY** 

Directions: Cut out the shapes and sort into the chart on the next page. Cut on the blue dotted lines only.





## Three-Dimensional Shape Attribute Rules

Shapes with 4 or more faces	Shapes with 0 edges, faces, or vertices	Shapes with 1 vertex
Shapes with 6 or more edges	Shapes with at least 1 circle face	Shapes with more than 2 faces but fewer than 6

## LESSON 49: MATH JOURNAL

Directions: Write an attribute rule that fits two or more three-dimensional shapes. Then glue down the shapes that fit your attribute rule.

— — — — — — — — —	

#### **LESSON 51: APPLY**

Directions: Decide which would be the best unit of measurement for weighing each object. Circle your answer.

1. grams (gm) or kilograms (kg)?



3. grams (gm) or kilograms (kg)?



5. grams (gm) or kilograms (kg)?



7. grams (gm) or kilograms (kg)?



2. grams (gm) or kilograms (kg)?



4. grams (gm) or kilograms (kg)?



6. grams (gm) or kilograms (kg)?



8. grams (gm) or kilograms (kg)?



### **LESSON 51: MATH JOURNAL**

Directions: Reflect on your learning. Think of an item at your home whose mass you would measure in grams and one you would measure in kilograms. Draw the items. For each picture, label which unit of mass you would use.

I — — — — — — — —	

#### **LESSON 53: APPLY**

Directions: Read the word problem, write a number sentence, and solve to find the answer. Label your answers with gm (gram) or kg (kilogram).

1. Aisha has 1 dog that weighs 10 kilograms and 1 cat that weighs 5 kilograms. How much do both of Aisha's pets weigh together?



2. Raja has two toy balls that each weigh 100 grams. He puts them both in his bag to take to the park. How much do Raja's toy balls weigh together?





3. Fatima has a bicycle that weighs 12 kilograms. Her sister has a tricycle that weighs 9 kilograms. Their dad wants to carry them at the same time. How much do the bikes weigh all together?





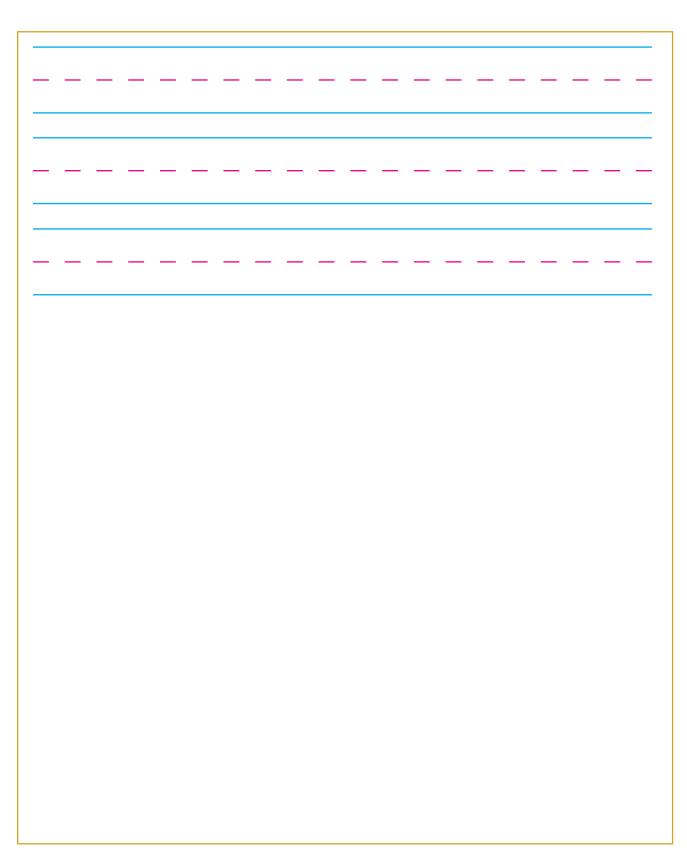
4. Mukhtar had a bucket filled with 65 grams of sand to build a sandcastle. His friend brought another bucket with 26 grams of sand. How many grams of sand do they have all together to build a sandcastle?





Directions: Why is it important for us to be able to measure the

mass of things?



#### **LESSON 54: APPLY**

Directions: Read each problem and solve. For numbers 5 and 6, write your own math word problems with weights.

1. Mostafa has a bag of rocks that weighs 19 kilograms. He found 7 more kilograms of rocks and put them in his bag. How many kilograms of rocks does Mostafa have in his bag in all?

\_\_\_\_\_ + \_\_\_\_ = \_\_\_\_



2. Yasmin bought a bag of sugar that weighed 80 grams. She made cookies and used 20 grams of sugar. How many grams of sugar does Yasmin have left?

\_\_\_\_\_ = \_\_\_\_



3. Heba collected two bags of seashells. One weighed 4 kilograms and the other weighed 5 kilograms. Her sister collected two bags of seashells. One bag weighed 6 kilograms and the other weighed 5 kilograms. How many kilograms of seashells do Heba and her sister have in all?





4. Karim has a box of crackers that weighs 78 grams. He eats 19 grams of crackers. How many grams of crackers are left in the box?

\_\_\_\_ = \_\_\_\_



## My Mass Story Problems

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## **LESSON 55: APPLY**

Directions: Decide if the activity happens in the a.m. or p.m.

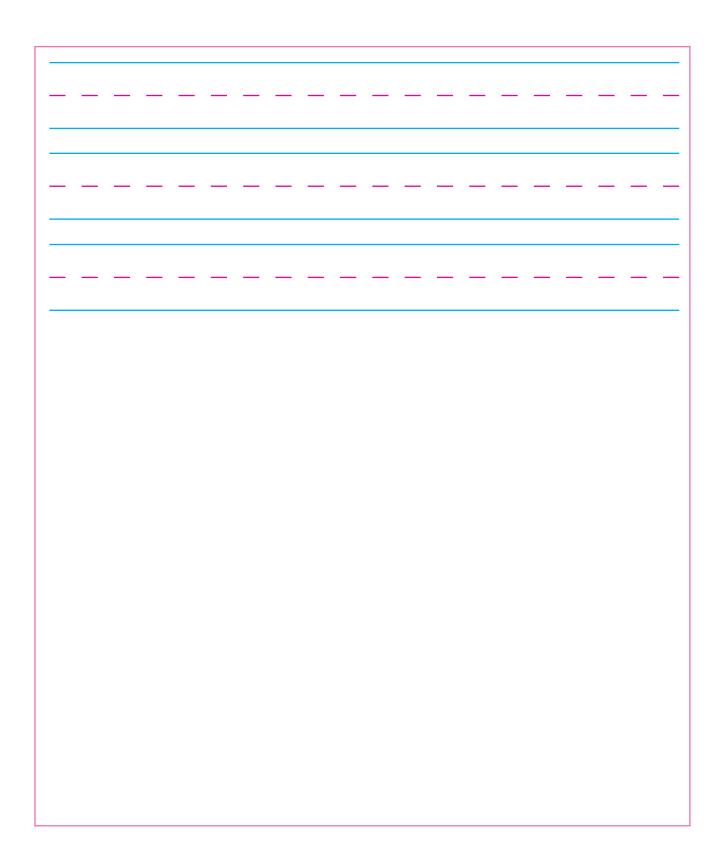
Circle your answer.

	11 12 1 10 2 3 8 4 7 6 5	a.m. p.m.
Milk .o	11 1P 1 10 2 9 3 8 4 7 6 5	a.m. p.m.
	11 1P 1 2 9 3 8 4.	a.m. p.m.
	11 1P 1 10 2 9 3 8 4.	a.m. p.m.



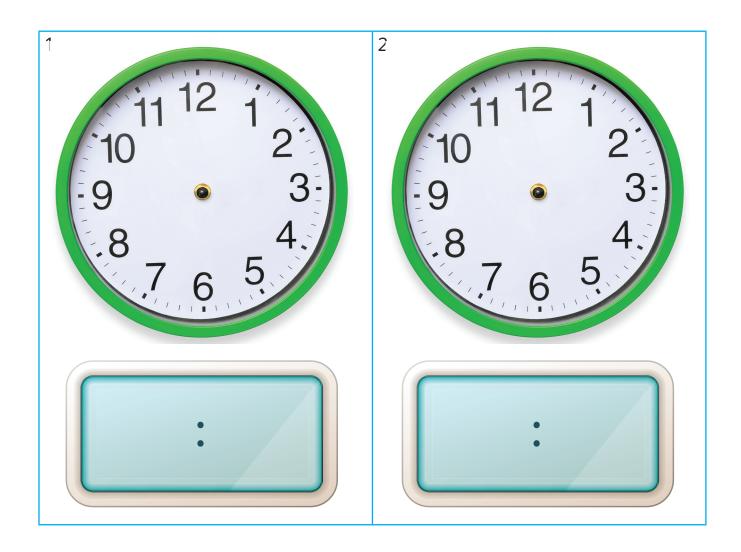


Directions: Write or draw something you learned today about telling time to the half hour.

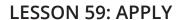


**LESSON 58: APPLY** 

Directions: Your teacher will say a time. Show the time on the analog and digital clocks below.



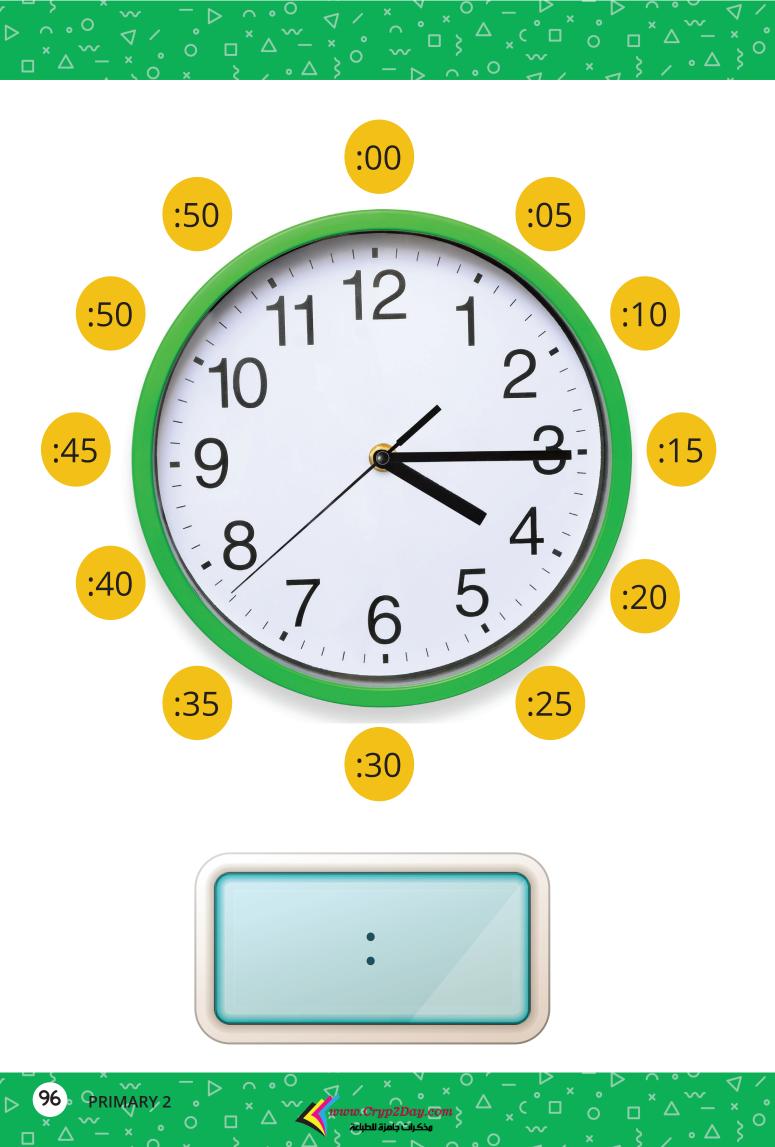




Directions: Draw triangles clearly and neatly for one minute. Your teacher will tell you when to start and stop. Then, count your triangles and record your total.

How Many Triangles in One Minute?

Total number of triangles \_\_\_\_\_

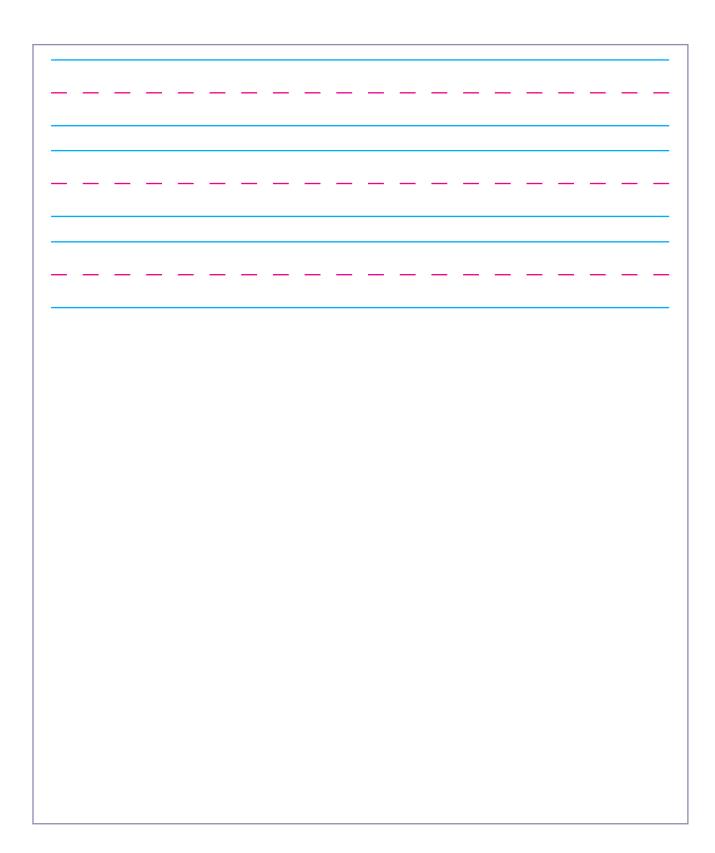


0 0

**LESSON 59: MATH JOURNAL** 

Directions: Write or draw something that you learned today

about the minute hand.



Directions: Match the clock with the time.



Quarter to 1 12:45



Quarter past 3 3:15



Quarter to 5 4:45

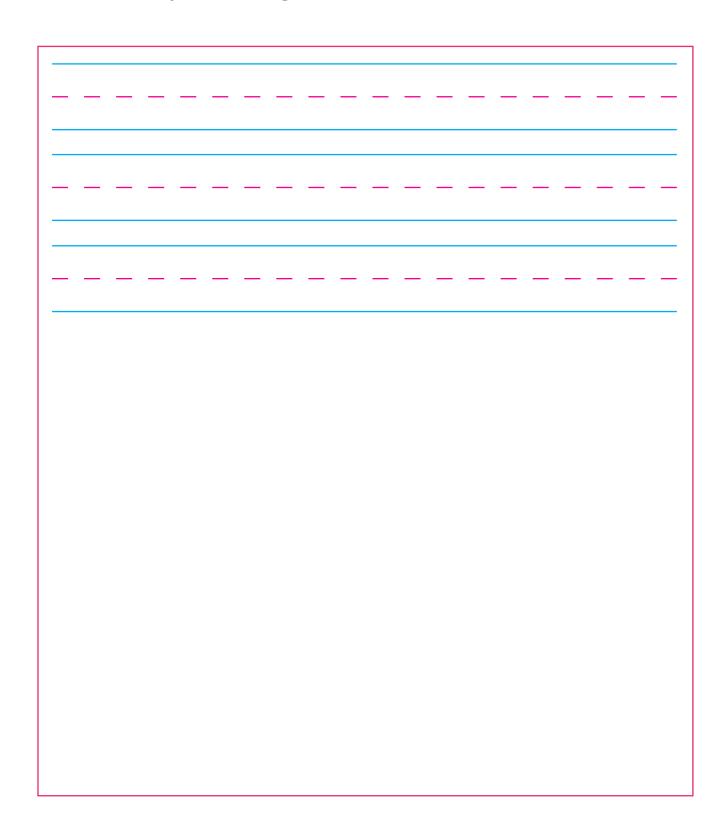


Quarter past 7 7:15



Quarter past 2 2:15 **LESSON 60: MATH JOURNAL** 

Directions: Reflect on your learning. What is one thing you are proud of learning about time? What is one thing you are still working on? Write about or draw your thinking.



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